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THE
ABUSE OF ALCOHOL

1872.

Price 2/6

THE
ABUSE OF ALCOHOL
IN THE TREATMENT OF
ACUTE DISEASES.

A Review.

BY T. P. HESLOP, M.D.,
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PREFACE.

THIS Review was published in the Dublin Quarterly Journal of Medical Science, in 1860, at a period when English Medicine and English Medical Critics seemed to be bound, hand and foot, to the doctrines and practice of the eminent clinical teacher at King's College Hospital. Its publication in that periodical marks the beginning of another tone in the notices of contemporary critics ; a tone which has been ever gathering strength from that period to the present time.

The re-publication in a separate shape of essays contributed to periodicals has become a common feature of modern general literature. It is, however, so exceptional in medical writings as almost to deserve to be called a novelty. I find my justification for taking this course in several considerations.

The recent declaration relative to the incautious employment of alcohol in practice was signed by a large number of eminent physicians and surgeons. The necessity for the warnings contained therein is thus confirmed by persons whose position as consulting practitioners must have enabled them to form a judgment as to current modes of treatment. But if that declaration was needful, the renewed publication of this paper can hardly be mistimed.

It seems, moreover, to be useful to note the danger of following mere fashion in medical practice, and to show the ease with which a man of ability can convince himself, his pupils, and the public, for a time, that the facts and reasonings of all previous observers, however trustworthy, were erroneous. In 1860 it was to be in the mode to be a follower of Dr. Todd's therapeutics, and a believer in his doctrines. Many members of the profession lost their balance then, and have never regained it since. They may be possibly helped in their efforts towards effecting it by the perusal of an analysis of these doctrines, in the light of results achieved.

It has also occurred to me that the review department of an Irish journal scarcely constituted the medium best fitted to bring under the notice of English physicians the faulty nature of the teachings of a popular writer. Medical reviews are not much studied by readers of periodicals, being deficient in authority, and the medical journalism of home manufacture offers a sufficiently heavy mass of material to the student.

It will be a source of regret to me if fanatics, whether of temperance or otherwise, seize the title of this *brochure* as offering support to their presumptuous statements. I intend only to draw attention to the improper use, the extravagant employment of an agent capable of rendering inestimable services, under a better guidance. The following pages give no countenance to the opinions of those who, from observing the ill effects of alcohol on healthy individuals, and on the general welfare of a community, argue, or affect to argue that its administration should be withheld in disease. There is no foundation either in logic or in experience for such an inference.

Birmingham, July 1, 1872.

THE ABUSE OF ALCOHOL

IN THE TREATMENT OF ACUTE DISEASES.

THE recent death of Dr. Todd, in the midst of a career of great usefulness, combined with his important position for many years as a clinical teacher in King's College Hospital, served to throw a deep interest over this book at the moment of its publication ; and, perhaps, at the same time rendered critics more alive to its merits, and less sensible of its faults. After the lapse of six months we still feel the shadow of the lamented and honourable author hovering over his book, intended apparently by himself to be a final and complete exposition of the notion that "much of the practice of former days rests upon the insecure foundation of a partial and imperfect diagnosis of the primary disease, and a very inadequate interpretation of the subsequent phenomena of the case."—p. xi. of *Preface*.

It must be confessed that Dr. Todd has left no doubtful evidence of the wide divergence of his views from those prevalent even among the moderate adherents of the elder school, but has rather chosen to assert his doctrines, and display his practice, in a manner the most unreserved. This is very advantageous for the purposes of controversy ; while the clear method by which he has illustrated his Brounonian practice in the book before us will constitute it, for a long time to come, the text-book of the art of stimulation in *acute* disease ; which, let it be remembered, has ever been accepted as the crucial test of its value. But we venture to predict that this work will be something more. It will be a new starting-point—not from Brown forwards—but in the opposite direction. It will be a landmark in the medical history of our

Clinical Lectures on certain Acute Diseases. By ROBERT BENTLEY TODD, M.D., F.R.S., &c., &c. London : Churchill. 1860. Fcap., 8vo, pp. 487.

time, noting at once the farthest flow of the mighty tide of therapeutical innovations, and specially of resistance to the anti-phlogistic régime, and marking at the same time the commencement of an ebb which possibly may not terminate in this generation. No man can hope to effect more with stimulants than Dr. Todd has done; can use them more freely in all stages of almost all forms of disease, regardless of sex, age, habit, and symptomatic modifications. The young sempstress of eighteen, labouring under typhoid fever, and the veteran drunkard afflicted with phlegmonous erysipelas come in for the same doses of the same fiery stimulant, brandy. How facile the art of medicine must appear to the students of such a clinique! How consoling to the conscience of young men, wanting in self-reliance, and fearful lest something more might have been done to ward off the fatal issue of disease, must be the reflection that the simple exhibition of an ounce of brandy every half-hour, and beef-tea and quinine enemata every four hours, do, form, in very truth, the "law and the prophets" of the *ars medendi*! No man, we say, can hope to improve on Dr. Todd in this aspect; and therefore it becomes us, as critics, to give a full summary of the conclusions arrived at by a teacher so distinguished and so much beloved by a numerous body of students.

In the carefully written Preface the following conclusions are summed up. They are important as giving a clear idea of the whole book:—

"1. That the notion so long prevalent in the schools, that acute disease can be prevented or cured by means which depress and reduce vital and nervous power, is altogether fallacious.

"2. That acute disease is not curable by the direct influence of any form of drug, or any known remedial agent, excepting when it is capable of acting as an antidote, or of neutralizing a poison, on the presence of which, in the system, the disease may depend (*materies morbi*).

"3. That disease is cured by natural processes, to promote which, in their full vigour, vital power must be upheld. Remedies, whether in the shape of drugs, which exercise a special physiological influence on the system, or in whatever form, are useful only so far as they may excite, assist, or promote these natural curative processes.

"4. That it should be the aim of the physician (after he has sedulously studied the clinical history of disease, and made himself master of its diagnosis) to inquire minutely into the intimate nature of these curative processes; their physiology,

so to speak ; to discover the best means of assisting them ; to search for antidotes to morbid poisons ; and to ascertain the best and most convenient methods of upholding vital power."

Dr. Todd then proceeds to hint that the time is coming when the distinction of acute inflammations and acute diseases, in general, into *asthenic* and *sthenic*, will be discarded. This last averment may be fairly taken as illustrative of the author's teaching ; essentially revolutionary and dogmatic, as it appears in this book. It is too obvious that his acquaintance with the classical delineations of disease was far inferior to his acquisitions in modern research, and hardly equal to his great abilities. This must have seriously tended to impress upon his mind a tone of thought, which, for want of a better term, we must be allowed to term 'physiological,' as distinguished from 'clinical.' But this is not sufficient to account for such a statement, opposed, as it is, to daily experience. For the book of nature was ever before him. Illustrations of disease were constantly submitted to his eye, under the most favourable circumstances for careful observation. The fact is, that Dr. Todd commenced his professional career in London when the use, almost indiscriminately among the mass of his brethren, of the antiphlogistic régime nearly rivalled the practice of the immortal Sangrado. His acute mind must have often noted the defects of such a routine ; and his critical observations may have been stimulated the more easily as he had seen in this city—of whose medical school his father was so eminent a member—a mode of viewing and treating disease based essentially upon a thorough appreciation of the depressing nature and proclivities of morbid processes. Nevertheless, it would appear from numerous passages in this volume that Dr. Todd, in his earlier career, rather went with the London stream than with Dublin reminiscences. But a violent reaction was at hand, and in this, the revolutionary epoch of his medical career, he lost his balance. Unhappily, in the midst of a brilliant success, his life was cut off, and all opportunity denied to him of finding in a wise eclecticism that medium between promiscuous antiphlogosis and rash stimulation, which seems to be the final resting-place of all sound medical experience.

The distinction between diseases exhibiting a sthenic character,

and those marked by an asthenic character, though denied by Dr. Todd, is, perhaps, of all the classifications of disease, the most fundamental—the most true to nature. It is one which is made instinctively, after the simplest observation, and yet confirmed by the most rigid inquiry and the most searching philosophy. What a strange condition of mind is evinced by the denial of so elementary a view of our science ! It lies at the root of the theory and of the practice inculcated in this book, and, in our opinion, vitiates from the bottom its reasoning. Alas ! the routine man of the lancet and tartar emetic will find an easy victory here, and ask with astonishment whether it be a delusion that one patient is strong under disease, and another weak—the whole powers of life in a state of firmness and tension in the one, in a state of yielding and laxity in the other. He will further inquire how it happens, if this able teacher be correct in his interpretation of bedside phenomena, that one man, labouring under pneumonia in an acute form, dies from the progress of the disease, in consequence of its invasion of a large portion of lung structure in a short time—asphyxiated, in short, with heart and nervous system exhibiting vigour and resistance ; while another patient, with a moderate portion of his lungs invaded by exudation, dies from the existence of an amount of depression of the vital forces—pre-eminently of the functions of the nervous and circulatory systems—simply incompatible with the maintenance of life. There is no answer to these questions in Dr. Todd's philosophy—none anywhere, excepting in the admission of the basic distinction that sometimes the general powers of life sympathize in the direction of strength, and sometimes in the direction of weakness, with the local disease ; in other words, that the disorder is now sthenic—now asthenic.

The first of the preliminary propositions contains, by implication, a statement which we can by no means admit : it is, that antiphlogistic measures necessarily “depress and reduce vital and nervous power” *in disease*. The contrary is a matter of familiar observation in reference to three, at least, of the elements of that régime—bleeding, emetics, and purgatives. The vital and nervous powers are certainly anything but depressed after a copious bleeding in traumatic meningitis ; the countenance and the pulse

forbid, too, any such inference after the free application of leeches to the abdomen in certain forms of peritonitis. We lately heard of a great prize-fighter attacked by an acute disease, who, after a copious bleeding, felt such an improvement in his "vital and nervous power" that he suddenly thrust out his arm at full length, and cried, "he was ready to fight now any man in England." The effect of an emetic in producing reaction—~~increase~~, rather than diminution of power, in certain circumstances—needs no further allusion. Of purgatives we can aver, as has been admitted in every age of medical history, that there are no means at present known comparable with them as powerful exciters and regulators of the nervous system in certain morbid conditions. The instantaneous relief of "depressed vital power," in a variety of diseases, after the energetic action of a cathartic capable not merely of emptying the bowel, but of stimulating its numerous glands, must surely be beyond the reach of question. We must, however, go even further than this, and ask the practical reader whether he has ever remarked, in fevers and other acute disease, a depression of vital power—a dull stupor of the nervous system—a perturbation of the whole functions, under an excessive administration of alcohol, which have rapidly been replaced by steadiness and calm after its withdrawal? Yet, in Dr. Todd's view, alcohol necessarily exalts vital power, and strict diet as necessarily tends to reduce it. If we examine the proposition from another aspect, we can only use the words of Dr. Symonds, that our "memory swarms with cases, each pressing forward to be the first to give a wondering and emphatic refutation of this extraordinary dictum*." We feel that it is impossible to question with success the extent of the power, in certain cases and seasons, exercised by bleeding, local and general, tartar-emetic, active purgation, cold applications to the surface (and such favourable operation seems to be frequently brought about through the medium of a temporary reduction of vital and nervous power), after a period of excitement and exaggeration of function. We must admit the existence of a school of physiological medicine, whose glory it is to deny these and similar facts. But this school is under the domination of

hypothesis ; so that the plainest teaching of experience is set aside when happening to traverse its speculative deductions.

Another shibboleth of this school is incorporated in the second proposition of Dr. Todd, "that acute disease is not curable by the direct influence of any form of drug, or any known remedial agent, excepting when it is capable of acting as an antidote, or of neutralizing a poison, on the presence of which in the system the disease may depend—*materies morbi*." Here the author frankly avows that, in all diseases of acute character, there is a *materies morbi*—a something to be neutralized, if drugs or remedial agents have any direct influence on their course. A far more explicit affirmation of the same doctrine, without the qualification, is to be found in other parts of the book, whence we infer that Dr. Todd viewed morbid processes in the most exclusively humoral light. This sadly impairs the utility of his prelections, while it throws an air of simplicity over the doctrines and practice inculcated very seductive to the youthful reader. It will be observed that no specific is admitted into this charmed circle of speculation. In the Lecture on Erysipelas the tincture of the sesquichloride of iron is denied all modifying power over its progress. We suppose that quinine, whose influence over intermittent fever is indisputable, ranked with Dr. Todd as an antidote, although certainly there is not a tittle of evidence that this disease is produced by a poison, or *materies morbi*, in his sense, and the whole history of the malady may not be unfairly considered as illustrative of some subtle nervous aberration.

The rashness of the assertion contained in this proposition becomes evident on the slightest consideration. Who, for instance, can deny the "direct influence" of the affusion of cold water in *coup de soleil* ? And this is an acute disease enough, tending to a rapidly fatal termination, where we do not suppose any "poison" can be imagined to exist. But our objections lie at the very root of the matter, apart from all affairs of detail. The plain question that we must ask Dr. Todd's numerous defenders is—Do we know enough of the inner causes of disease, the mutual actions of the body and of things without, have we such trustworthy knowledge of the *modus operandi* of remedial agents, that we are enabled to declare that these latter act in one way only, in so far as they

are able to influence disease? Such an interrogatory carries its own reply on its face. We will not now insist on the obstructive tendency of such statements as we are combating upon the progress of inquiry into the physiological and therapeutical properties of drugs. We will content ourselves with noticing that all our present acquaintance with these would lead us to reverse Dr. Todd's dictum, and rather induce us to believe that the most direct influence exerted by our curative agents is on the solids, on the minute vessels and nerves. The most curious part of the whole subject, however, is, that we have absolutely no evidence of the existence of a morbid poison in the great majority of acute diseases; that the existence of a *materies morbi* is doubtful in almost all; that the *modus operandi* of such as we have some notion of is altogether unknown to us, and that, so far as we know, there is no remedial agent which can in any sense be said to be an "antidote" to a morbid poison. The coarse toxicology of the mineral and vegetable kingdoms seems to have strangely warped the author's fine mind, and to have led him to give a purely fanciful basis to therapeutics.

The third proposition, "that disease is cured by natural processes, to promote which, in their full vigour, vital power must be upheld," reads like a self-evident truth; but then we must inquire what the author means by "vital power" and by "natural processes." We find that in the author's sense a natural process of cure is essentially one of elimination. Certain exudations having been effused, and certain changes having been effected in the exuded materials, the next and final step is their discharge, either immediately by conduits arising from the diseased organ, as, according to the author, in pneumonia, or mediately through the instrumentality of the vascular system. But are these evacuations or excretions in fact the process of cure, or the result of the process of cure? In typhus fever there is no exudation *essential to the disease*;—there is no critical evacuation, but as an exceptional condition. In ague, there is a remarkable series of alternating periods of quiescence and excitement, the final stadium of these latter being sweating. But this seems to be in no manner an effort at elimination, but the inevitable result of antecedent states of the vessels and nerves. We do harm, often very serious mischief, by

attempting to promote what wears the aspect of so very natural a process of cure. On the contrary, we produce the most perfectly curative result known to medical science by a drug which stops these alternating periods, and prevents the evacuation through the skin.

In reference to "vital power," we must not forget the fundamental postulate of Dr. Todd's pathology, that disease and debility are convertible terms, indicating strictly correlative conditions. Now, for the purposes of the practical physician, his sole object of anxiety in this relation must be—is there sufficient, a plus or a minus *vital resistance* to the disease? And if he would be anything but an empiric, if he would become able to deal with morbid processes, so as to give them an unembarrassed sphere of operation, it behoves him to set about this investigation with an earnest humility, such as he cannot fail to be inspired with if he only considers that it comprises a full half of the whole duty of the physician. The appreciation of this point, consciously or unconsciously, marks the true clinical observer. Inattention to it is the characteristic of schools—where the study of the natural history of disease takes the place of the proper art of medicine.

One side of these inquiries has been well put by Dr. Symonds, of Bristol, in the paper previously cited. "In the early period of inflammation and its attendant fever, where and what is the vital power to be upheld? Take the three great functions of life; is it the power of the heart? This is already inordinately and dangerously strong. Is it the power of respiration? This too is, excepting when the lungs are themselves diseased, above the normal rate. Is it the power of the nervous system? Already sensibility is too acute, and thought too active, while increased motion would be positively detrimental. But other expressions made use of, such as 'treatment from the beginning of a decidedly supporting and stimulating nature,' imply that strong nutriment is to be given, in order, I presume, to repair waste. But as yet there is no waste to be repaired. The skin is obstinately dry, and there is far less expenditure than natural from the liver, the bowels and kidneys, and other excretory organs. The only function of the system that denotes anything like a tendency to the restoration of order is the instinct which refuses food.

More fluid is craved, "because, though it leaves the system so scantily through the natural outlets, it disappears in a mysterious way, and seems to enter into some abnormal chemical combinations with the blood and tissues." In such conditions as these it is more than probable that the profuse administration of alcohol may neither uphold vital power nor promote any natural process of cure. Dr. Todd seems to have had the keenest idea of the impropriety of embarrassing the *vis medicatrix* by bleeding, mercury, strict diet, and so forth ; but it seems to have never occurred to him that the administration of a couple of imperial pints of brandy every day to a young girl in her teens, suffering from an acute disorder, may possibly disturb the natural evolution of pathologic processes to an infinitely greater degree. Mark, too, again, how completely *a priori* reasoning negatives the author's views. We have strong analogical grounds for the use of blood-letting ; for sometimes nature brings about the most decisive relief by spontaneously setting up an evacuation of blood. The same may be said of purging, sweating, biliary vomiting ; but where have we an analogy in the natural history of disease for the employment of alcohol ? It is true that when the nervous and vascular systems show a minus resistance to the disorder—when an ataxic condition is superinduced early or late—or when the waste effected urgently demands attention to the maintenance and increase of assimilation,—alcohol constitutes a precious resource ; now, as a neurotic stimulant—now, as a valuable means of support. But it is easy, nay, necessary to admit this, without allowing that brandy exercises a direct curative influence over all acute diseases, in all stages.

We will not delay longer over the prolegomena of the lectures. Let us only remark that our objection to the fourth proposition is based on its contracted view of the physician's scope in searching for remedial agents. According to the author, we have only "to search for antidotes to morbid poisons, and to ascertain the best and most convenient methods of upholding vital power." The duty of the physician we believe to be, to endeavour to combat morbid processes by every instrument in his power—to listen to the dictates of experience, and watch the actual effects of the measures he employs—pleased when he can bring an antidote to

bear upon a morbid poison, but prepared to administer each and every remedy, of whose beneficial operation he has a sufficient warrant.

In the first three lectures the subject of rheumatism is discussed ; and, as in every other part of the work, admirably illustrative cases are reported by the able clerks of the hospital. On the whole, we think the author's practice in this malady enlightened and judicious, although we shall be obliged to dissent from many points of detail. In discussing the first case, that of a young woman, aged 23, who had recently been confined, he alluded to the profuse sweating by which it was accompanied :—

“ This is a special phenomenon of the fever. It is not distinctly of a critical or sanitary nature, as we sometime see it in other fevers, for the sweats do not produce any marked immediate good effect, either on the joints which are implicated in the disease, or on the general state of the patient. In this case, the sweating was profuse ; you doubtless recollect how it poured forth from the patient's head and chest, and, indeed, from the surface of the body universally ; and from that, you may judge how much fluid must have escaped through the channel of the sudatory apparatus. I must say, however, that I do not regard these sweats as otherwise than salutary within certain limits ; I think that, in the early days of the fever, they should be encouraged as an important medium for the elimination of noxious matter from the system, and that you ought to be cautious how you stop such sweats, except where they are distinctly debilitating to the patient.”

It is proper to observe that in cases like the one here discussed by Dr. Todd—that is, rheumatism occurring soon after confinement—sweating is an especially characteristic symptom. Sudamina appeared in this case, and we have observed the same condition. But is the sweating of acute rheumatism an eliminative effort of nature ? Do measures calculated to increase it diminish the severity and hasten the cure of the disease ? Surely not. In rheumatism we have a good instance of an evacuation through a great secretory apparatus being anything but a part of nature's system of cure. It is a symptom only of a morbid state ; just as the vast overflow of aqueous fluid through the kidneys in diabetes is a symptom of a given condition which obtains no relief from such overflow. We are well convinced that the excessive diaphoresis of rheumatism is itself a secondary cause of various morbid sequences in this malady, and deserving far more weight than has been allotted to it. Fatal cases have occurred to us in the female

sex during the last dozen years, which we have referred mainly to the profound asthenia, and tendency to fibrinous clots, brought about, as we have believed, by the intense action of the skin. It is a matter of constant observation, that the first indications of relief coexist with an increase in the urinary secretion and a diminution in that of the skin. Sometimes a spontaneous diarrhoea seems to be the starting-point of improvement. Yet, Dr. Todd says, "it is probable that the *materies morbi* in rheumatic fever is lactic acid, or some analogous agent. We know that the natural emunctory of this is the skin."

The author plainly exhibits his consciousness of the severity of the sweating as a real symptom of the disease. For, in alluding to the useful application of cotton wool to the joints, he warns his hearers that patients are sometimes distressed by its adding to the existing diaphoresis. The quotation we have just given equally demonstrates the doubts in his mind of the salutary nature of the evacuation. But he was tied hand and foot to the doctrine of elimination, natural and artificial, in his general directions to his class, so that he lays great stress upon the necessity of promoting the emunctory action of the skin. This, however, was unnecessary, taking the author's own doctrines as true. Sweating is not a "natural process" of cure in rheumatism; and, therefore, not one to be either excited or promoted.

In the general directions at the end of the second lecture it is stated that you must give purgatives to such an extent as to keep the bowels in a loose state, taking care not to carry this treatment so far as to weaken your patient. The records of the cases leave the impression, however, upon our mind that in his actual practice deficient attention was bestowed on the bowels.

Dr. Todd's third case is that of a labourer, aged 29, whose health had been generally good, and who was accustomed to liberal potations of beer. He was admitted on the 21st of September, 1854. Pericarditis was noted; all the phenomena were those of intense reaction. On the fifth day after admission,—the pericardial friction sound continuing, and the number of joints affected being greater, but the tongue cleaning, bowels open, appetite improved, urine clearing and falling in specific gravity,—brandy was administered, whether three or six ounces per diem is not clear. "There was no important alteration for some days."

On the 3rd of October it was necessary again to blister the chest.

On the 4th sudamina are noted.

On the 7th, being the seventeenth day from his admission, we read the following report :—

“He is now improving daily. Pulse, 84 ; respirations, 26 ; sleeps well, and does not sweat ; the pain is confined to some of the muscles ; a slight friction sound alone remains audible at the apex of the heart ; tongue clean ; appetite good ; bowels open ; he still continues the brandy.”

After this he remained some weeks in the hospital gaining strength ; there was a return of slight pain in the joints, for which iodine was applied. Had this patient been bled, what a homily the author would have read to his class upon the *nimia diligentia*, the tardy cure, the slow and imperfect convalescence, thus engendered ! For our own part, in the interests of truth, we must declare, most earnestly, that the case is a perfect illustration of the *nimia diligentia*. The disease was fast approaching to a natural termination on the 26th of September. Brandy was administered, and it took eleven days more to obtain the recurrence of a similar condition to that which existed previous to its administration. We are deeply impressed with the fact that there is no acute disease of a febrile nature which bears alcohol so ill as rheumatism ; and we do not think that any physician can interrogate his clinical experience, his mind unbiassed by prepossession, without arriving at this conclusion.

The fourth case of rheumatism occurred in a girl aged 16. It was one of the utmost severity. She was ordered alkaline and neutral salts of potash, and a little opium every four hours. On the third day of the treatment the pulse had fallen 36 beats, and she was free from pain.

On the 10th day of the attack she was quite free from pain. There was no relapse, and she was soon after discharged well. This is an admirable illustration of judicious treatment. There were no attempts to “uphold vital power ;” not a particle of stimulant of any sort was given. There were no violent efforts to stimulate eliminatory organs. No purgative, no sudorific was administered.

The fifth case was also one of great severity. The treatment adopted consisted in giving solution of acetate of ammonia and laudanum. Although endo-pericarditis attended this case, on the third day of treatment amendment commenced to appear, still further confirmed on the fifth day; and her after-progress seems to have been most satisfactory; not a particle of stimulant was given. In these cases we have examples of the cure of rheumatism on well-recognised principles. They show that Dr. Todd's practice was often superior to his dogmas, as it could not fail to be in one so acute and conscientious. But are his numerous disciples equally discriminative? Unhappily the dogmatic teaching of a powerful mind is remembered, when the judiciously observed exceptions are forgotten; and experience offers abundant proof that the worst parts of an *ultrageous doctrine*, if we may quote one of Canning's significant phrases, are more apt to be carried out by enthusiastic disciples than the best,—Marat seems to come quite naturally after Mirabeau.

The second lecture is mainly occupied by criticisms of various modes of treatment of rheumatic fever. Bleeding is severely condemned, but, in the main, not more severely than it deserves. However, it is satisfactory to know that routine venesection had disappeared a dozen years ago from these islands. No warning is certainly required against this measure now-a-days. In reference to colchicum and guaiacum, it is stated that "these drugs, but especially colchicum, have long been considered to possess a specific influence over rheumatic and gouty affections," which Dr. Todd considers to be a fallacy. It is long since any competent person believed that colchicum exercises a specific influence in acute rheumatism. For many years past it has disappeared from the medical man's memory as one of the things "good for rheumatism;"—for rheumatism, we mean, of febrile form. Quite as surely colchicum maintains its position as more potent, *longo intervallo*, than all other remedies with which we are acquainted, in gout, in which disease we must be allowed to term the influence of colchicum strictly "specific." It is true that we are better acquainted both with the natural history of the disease and with the disadvantages of the drug than formerly. We know that it is not desirable to give this medicine on every

occasion of a gouty attack. We have now learned that the *attack* may be cured, while the *disease* may remain. Nevertheless, nothing has hitherto come to light calculated to shake the opinion of our immediate predecessors, that colchicum constantly annihilates a paroxysm of gouty pain, though it may leave untouched the gouty disorder. The observations upon the treatment by opium are excellent. "You will find it extremely serviceable in practice, but I do not recommend it alone." It is further observed that "its great value consists in relieving suffering, and soothing the nervous system, while it promotes diaphoresis." The circumstance that it is apt to stimulate the last to an extravagant degree has often compelled us to withhold it, or administer the drug in night-doses only.

Haygarth's plan of giving bark, since imitated in Paris by M. Solon, is disapproved of. It is admitted by the author that he has "seen great good done rapidly by the use of quinine, in cases where the sweating is colliquative, and the urine copious and pale, with abundant precipitates of *pale* lithates." These constitute trustworthy marks by which the propriety of the quinine treatment may be determined, as we have had occasion more than once to note. The local treatment advised consists in cotton wool and blisters. Leeches are said to be "useless or injurious." We cannot subscribe to this dictum. Very frequently one or two joints are the seat of intense pain for several days. The patient especially refers his suffering to these particular joints. We can speak from experience in our own person, as well as from wide clinical observation, that in these circumstances leeches will not "probably fail to give relief." On the contrary, the agony of the patient obtains immediate and often permanent diminution.

The author sums up his treatment as follows :—

"You perceive that all the means employed in this mode of treatment tend to elimination, and to the relief of pain ; the opiate sudorific affecting the skin, the nitre and alkaline salts acting on the kidneys, the purgatives on the mucous membrane of the bowels, the wool and blisters on the joints.

"During this treatment, while you allow your patient the liberal use of simple diluents, you must give a fair amount of nourishment from the first, and I think this may be best supplied by a small quantity of good beef-tea, given frequently throughout the day.

"Often you will find it useful, *and always when there is a tendency to delirium*, to give stimulants, such as brandy or wine."

The italics are our own, for we are anxious to draw the attention of our readers to the tone of Dr. Todd's teaching, as evinced by this passage. We admit that the existence of delirium is very often indeed a sound reason for the administration of alcohol. We willingly further admit that the late Clinical Professor of King's College Hospital did great service by his frequent allusions to this fact ; but will any experienced physician, acquainted with the literature of his profession, be able to go along with the author in so wholesale and exclusive a declaration as that stimulants should *always* be given when there is a tendency to delirium ? Dr. Todd seems to us to have been like Napoleon the First and many other men of strong character in history. He would only see one side of any question submitted to him. The other must be ignored. Doubts, however, of the certainty of our view, if inconvenient while giving instruction, are not rarely prudent in practice.

The third lecture is devoted to the consideration of the complications of rheumatic fever, and chiefly to the cardiac diseases incident to the disorder. The author insists, and we believe with justice, on the great importance of free blistering in the cardiac inflammations, but energetically repudiates blood-letting. That the author's statements relative to the injurious influence of excessive bleeding, and his theoretical arguments, based on trustworthy modern researches, deserve the utmost weight, we are not disposed to deny. But our clinical experience of the value of local bleeding, to a moderate degree, in the primary stage of endocarditis or pericarditis has spoken too decisively to be doubted. There is no measure that we are aware of which produces relief to so marked a degree,—and knowing the identity of morbid processes, and that like results follow from like agents when employed in similar general conditions, we are fairly at a loss to account for Dr. Todd's observations on this point excepting on the supposition just alluded to, that he was so influenced by the fears of diminishing the "vital fluid" that he resolutely shut his eyes to the opposite phase of the question.

The delirium of rheumatism is discussed with great ability. The description of this symptom offers a good example of the lecturer's powers of delineation :—

"It sometimes comes on gradually, the patient having been a little talkative and wandering for two or three nights; sometimes it comes on quite suddenly. In its general character it resembles delirium tremens; generally, however, exhibiting less of the nervous tremor which belongs to intemperance. The patient is restless, busy, talkative, picking or pulling the bed-clothes, frequently rising in bed, and wanting to get out of bed, reaching out his hand, as if to catch hold of some object before or behind him, and sometimes, a most important symptom, obstinately refusing to take either food or medicine.

"In many instances, as I have already said, this delirium ushers in pericarditis, pleurisy, or pneumonia; frequently, however, it occurs after one or other of these maladies has set in, and sometimes it occurs without them. It has, therefore, I think, no necessary connexion with these internal inflammations, although it frequently accompanies them."

Should death occur, the membranes of the brain are stated to be perfectly free from abnormal deposit, the pia mater and gray matter pale; and the sub-arachnoid fluid is increased in quantity. "These signs indicate not only that the brain has been imperfectly supplied with blood during life, but that the vascular pressure upon it is less than it ought to be; and that, consequently, an increase of the sub-arachnoid fluid has taken place."

In again remarking on the absence of effusion about the brain in the post-mortem examination of the thirteenth case, it is said "these effusions, indeed, we now know, are *results* of the diminished size of the brain which follows its imperfect supply of blood, and its impaired nutrition; and, as they do not exert any undue pressure on the brain, or any part of it, they produce no symptoms during life."

Now, we entirely coincide with the author's general views of rheumatic delirium; we accept his delineation of its characters, as, in the main, correct; we agree with his declaration of the necessity for supporting and stimulating the vital powers in the great majority of such cases; but two facts, altogether beyond dispute, preclude our acceptance of these exclusive pathological dicta:

1st. That delirium is indisputably a symptom of inflamed brain or membranes apart altogether from rheumatism.

2nd. That *occasionally* in this disease, where delirium has occurred during life, the well-marked indications of inflammatory exudations have been observed after death.* Surely, it might

* Watson's Practice of Physic, vol. ii., Fourth Edition, page 302; both text and foot-note.

have been sufficient to insist on the great frequency of delirium in rheumatic carditis, unaccompanied by any brain inflammation, on the importance of recognising the fact of effusions within the skull-cup being often the *result*, rather than the cause, of morbid processes, without annexing the total denial of other aspects of these questions. These are not points for mere theoretical debate. They are relevant to the difficult problem, How is the rheumatic delirium to be treated? We have already indicated our general agreement with the author in his view of the necessity for supporting treatment when this symptom appears, the more especially in the later stages of the disorder; but this forms a portion only of his treatment, which also includes opium. It is, indeed, stated that sometimes patients "who have been actively delirious will suddenly fall into coma, and die;" and elsewhere it is averred, that when they evince "a marked tendency to coma, then, of course, you will not use opium;" but the author's practice negatives, in the most precise manner, these wise precautions. On the same page on which the first of these remarks is made, the case of an university student, aged 22, is given. It was evidently one of great severity. Ten days after the commencement of acute symptoms Dr. Todd was telegraphed to see him; he had a full throbbing pulse, and soon became very restless and delirious. At midnight on the same day he again visited him, and detected a friction sound over the heart; "the delirium had increased, *with a comatose tendency*; but he could still be roused, and then recognised me and others about him. I ordered him half a drachm of the bicarbonate of potass, and a grain of opium every three hours, and a small quantity of brandy. In the night the delirium increased, and he refused to take food or medicine; *his breathing became catching*; pulse, 120; and soon after nine o'clock next morning he died."

In his remarks the author declares that that if he had to treat such a case from the beginning, he should employ "opium at once." Possibly it might have been beneficial to administer this drug at the beginning; but does it therefore follow that its administration was justifiable at the period of the visit? Did we feel at liberty to make further comments on the case, they would be very different from those of the author.

The next patient was a young servant girl, aged 17. Delirium was a marked feature of the case. So far as we can judge from the rather obscure account of the treatment, somewhere about the fifteenth day opium was pretty freely administered ; a few days afterwards her pupils were contracted ; she was drowsy, "and evidently much affected by the opium." She lived twenty days afterwards, constantly taking opium ; delirium returning, apparently after a short cessation, but marking the case to the last day.

The next case is also that of a woman, aged 34. The symptoms were severe, and attended with marked endo-pericarditis. She was admitted on the 18th of June, 1844, having been ill for more than a week. Dover's powder, dose not mentioned, was given every four hours. At 11 p.m., June 19, the patient up to that time complaining of little or no pain, the physician's assistant was called to her, and found her delirious, talking incoherently, and the delirium accompanied by hallucinations ; pulse somewhat increased in frequency, 128, weak and compressible. She was ordered thirty minims of the liquor opii sedativus immediately. She slept after taking the opium, but at two o'clock a.m. the physician's assistant was again sent for, in consequence of her having had a convulsive fit affecting all her extremities. "He found her lying on her back, *her pupils very much contracted and insensible to light* ; pulse 132, weak, but regular ; her head hot, but the forehead perspiring ; the respirations were 30, and of a croupy character. *She was quite comatose.* She had a return of the convulsions, screamed out, and died." Comment is unnecessary here.

The next and last case is specially adduced as affording an illustration of the benefit likely to arise from "the early and liberal use of opium and stimulants," where delirium accompanies the rheumatic phenomena. In so far as regards the former, at least, the case is a remarkable example, taken from an unimpeachable source, of the exactly opposite result, namely, the ill effects of the so-called remedy. The subject of it was a footman, aged 19, of temperate habits, admitted on the 10th of February, 1852. "He had been taken ill five days before ; many joints were affected, and a systolic bellows-sound was heard at the apex of the heart on admission. He was ordered bicarbonate

and nitrate of potass, with five minims of laudanum, every four hours. He passed restless nights for the next two days, although the laudanum had been increased to ten minims. It was now increased to twenty minims. On the 14th, pericarditis appeared; on the 15th, he was for the first time delirious; on the 17th, being restless, he was ordered a night-draught of thirty minims of laudanum; ammonia was added to his mixture, and he was ordered eight ounces of wine in the twenty-four hours." That night, however, he was very delirious, trying to get out of bed, and leave the ward. On the 18th, he was ordered a pill containing two grains of calomel, and a quarter of a grain of opium, with each dose of the mixture. On the 19th, we find the delirium was not confined to the night, but he continued muttering to himself in the day, unless aroused or spoken to. The opium in his medicine was now increased by five minims, making twenty-five minims, and he took it every three hours. On the 20th the delirium still continued, and he seemed unconscious of what was passing around him; his pupils were contracted; pulse, 116; respirations, 36. *The mixture was omitted*, and five grains of carbonate of ammonia were given every two hours, together with half an ounce of brandy in beef-tea every hour; the pill was continued every *six hours*." That same night he was much quieter, and slept a little; in the morning his respirations had fallen to 26, and his pulse to 104. The next night was also comfortable. On the 24th he was free from pain, and progressing favourably, just a fortnight from his admission. He continued in the hospital about a month; morbid sounds continued to be heard for some time about the heart, and there was also some chronic swelling of the knee.

We beg the reader's attention to this case—it is specially invited by the author himself. Here is a young man, almost a boy, of temperate habits, who gets an attack of rheumatism. There is at first no delirium; he is treated *inter alia* with opium. It is increased to 20 minims of laudanum every four hours; delirium comes on. The laudanum is continued, and 8 ounces of wine are ordered. He is that very night, "very delirious." Solid opium, in quarter-grain doses, is given with the mixture; the delirium, previously confined to the night, comes on in the

day ; five minims are added to the laudanum, and he takes it every three hours. He becomes unconscious ; delirium continues ; the pupils are contracted. All opium is taken off, with the exception of one grain, in the 24 hours, in doses of a quarter of a grain every six hours. Brandy is freely administered. From that hour the patient begins to recover, and he becomes quiet. If this be an illustration of the beneficial effects of opium, will Dr. Todd's disciples be good enough to inform us of the nature of the evidence on which they rely, as proof of the evil effects of any given drug ? For our own part, we think that stimulants were prematurely administered, and aided in embarrassing the progress of the case. We are sure that the opium had a most prejudicial effect, and equally certain that the continuance of this drug on the 20th, in the same quantity as before, would have swiftly brought to pass a fatal termination. We would not be misunderstood. We know full well the benefit of opium in many cases of acute rheumatism—but there are conditions which militate against its employment—and those conditions meet in the cases we have discussed. This remedy constantly goes wrong in the female sex in all diseases. We have seen the most confusing phenomena more or less allied to hysteria, superadded to the existing state, after the administration of a large dose of opium to a female labouring under an acute disease, and especially under rheumatic fever. Of the four cases just detailed, three were fatal ; two of these were females. Opium constantly disagrees with the young ; we have observed this so often that we believe it to be connected with some definite condition of the nervous system. The ages of these patients were respectively 22, 17, 31 (a woman,) and 19. Again, the cerebral phenomena of acute rheumatism, especially delirium, seem to be influenced only in an unfavourable sense by opium. We have noted this fact so frequently, both in hospital and private practice, that we think it our duty to repeat here a warning we have often orally made, that this drug should be administered under these circumstances with the utmost circumspection—generally omitted, and if given, only in small and rare doses. Nothing can be imagined more different than the result of a well-timed dose of opium in certain special conditions of fever, and that of the same agent in the states we are now

concerned with ; and this difference offers fair evidence that the causes in operation producing the morbid cerebral manifestations are also different.

The fourth and fifth lectures are occupied with the subject of continued fever. We may observe here that Dr. Todd fully accepts the results of modern researches, that typhus, typhoid, and relapsing fever are produced by "distinct poisons." These lectures abound with admirable observations and show more than, perhaps, any other portions of the book the practical powers of the experienced physician. To sustain the vital forces while disease is undergoing its proper evolution is, if not the whole, at least the chief part of our duty in fever, which would seem to offer a natural sphere wherein the author could show the value of his doctrines and practice to the most advantage. The cases are characterized by enormous stimulation, to an extent we have never seen in the wards of physicians renowned in this very branch of pathology, and which we have certainly never thought fit to imitate. Thirty ounces of brandy were given daily, during a portion of the time, to the first case, a large bony man, of strong build, thirty-two years of age. He died. The second case, age not given, took brandy and chloric ether. He died. The third case, a girl aged 14, took as much as an ounce and a half of brandy every hour for three days together, and for the next fortnight half an ounce was hourly administered ; this latter quantity, however, being sometimes much increased as occasion required. She recovered under this astounding stimulation—a young girl fourteen years of age ! The case is too meagerly reported for us to judge in detail of the effects produced by thirty six ounces of brandy in the twenty-four hours, under these circumstances of age, sex, and disease ; but we earnestly draw attention to a point which should never be lost sight of in judging of the treatment of a given case of fever : we mean its *duration*. She was admitted on the 26th of September. It is not stated how many days she had been ill previously. "It was not until the 1st of November, thirty-five days after admission, that she was in a state to warrant us in diminishing the quantity of stimulants ; but on that day the pulse was 120. On the 4th it was 114, *falling under the diminution of stimulants*. She was dis-

charged quite well on the 4th of December, having been about *nine weeks* under treatment." This case therefore, warrants the opinion that the excessive amount of stimulants administered tended to the protraction of the fever so greatly beyond the average, and, in fact, to the extreme limit of the duration of enteric fever, of which form this seems to have been an example. But, it may be objected, the case did well; to which we reply, that young persons under fifteen years of age get well of *typhoid* fever, as a rule; and, as regards the protraction, there is nothing whatever in the history of the case to account for it but the violent efforts "to uphold vital and nervous power." The fourth case, a boy aged 15, of infinitely greater severity than the one just mentioned, who lost a pint of blood at stool two days after admission, was first treated with five or six drachms of wine every hour; after the hemorrhage, brandy was substituted for the wine. Afterwards, as the blood continued to flow, and signs of great prostration appeared, the brandy was increased to an ounce every hour. On the tenth day of the treatment convalescence began to appear. Here, then, was a boy one year older than the previous case, who, having suffered from a great hemorrhage, did very well, and recovered quickly under one-half less brandy, and that only administered at all after the loss of a pint of blood had occurred. The fifth case, a woman, aged 36, also one of great severity, had serious hemorrhage by stool. Half an ounce of brandy was given every hour; this was afterwards increased to six drachms. She recovered satisfactorily, and was discharged in the sixth week after admission. The sixth case also passed under blood *per anum*, and had other severe symptoms. The subject of the case was a man, aged 20. At first, wine was administered in half ounces every two hours. Afterwards, a third of an ounce of brandy was given every hour. This is the maximum of the stimulation. Nine days after admission he was much better; seventeen days after that event, "he was up and convalescent." Nothing could be more satisfactory than the termination and the shortness of duration of this case, greatly promoted, in our opinion, by the moderation with which stimulants were given. Eight ounces of brandy per diem to a patient labouring under intestinal hemorrhage with fever, with tongue

half protruded, tremulous, and brown, and taking little notice, is not a greater amount of stimulant than almost every physician in these countries would deem himself justified in giving. The seventh case, a woman, aged 39, died four days after admission ; stimulants are not mentioned in the record, we presume from an oversight. The eighth case also died, age not given, and the treatment omitted. The ninth case, also of enteric fever, was a nurse-maid, eighteen years of age. The chief characteristics were drowsiness, puffed face, suffused eyes, headache, white tongue, skin hot and dry, diarrhoea, bronchitis, with expectoration of scanty viscid mucus, of rusty tinge. Six drachms of brandy were ordered every second hour, three days after admission. On the following day she was extremely drowsy, and unwilling to be disturbed. The brandy was increased to an ounce every hour. The same symptoms continued on the fourteenth day of the disease, on which day, and at a subsequent period, she is declared "to have shown a great aversion to the brandy." There was no material change on the fifteenth and sixteenth days of the disease. On the seventeenth she seemed more prostrate ; the brandy was increased *to an ounce every half-hour*,—two imperial pints and eight ounces per diem to this youthful nursemaid ! No improvement was noted the next day. Profuse liquid evacuations recurred from time to time, and she remained very drowsy. On the nineteenth day there was an increase of the catarrhal sounds ; she became more drowsy ; her head was therefore shaved. On the twentieth day of the disease "a profuse perspiration, in all probability critical, burst forth," and a very decided improvement took place ; the eruption had disappeared from the skin, and the brandy being reduced from an ounce to six drachms, the drowsiness passed off. On the twenty-eighth day of the fever the pulse fell rapidly. On the forty-eighth she left the hospital quite well.

The author appends the following remarks to this case :—

"You will not often meet with so severe a case as this ending in recovery. I cannot but believe that the favourable result was owing to the steady exhibition of support of all kinds, especially of stimulants, from the earliest period of the disease. Still, it is curious to observe, how, about the twentieth day, a marked favourable change took place, and was accompanied by a profuse sweating, apparently of a critical nature."

This case appears to us to have been a precisely representative

example of that particular combination of symptoms and conditions which necessitates the restricted employment of alcohol. There were three local lesions, all such as, more or less, to negative profuse stimulation. In reference to the brain and nervous system, we mark the *absence of delirium*, a symptom in which the author reposes so much confidence as indicating the need for stimulus—the absence of subsultus tendinum, jactitation, tremors; the presence of drowsiness. In reference to the thoracic viscera, we note an irritative catarrhal condition, with “expectoration of scanty viscid mucus;” the respirations being once mentioned as 38, once 48 in the minute. There is no allusion to feebleness of the central organ of the circulation. Twice only is the pulse mentioned previous to the day of crisis, the first time as being only 108, the second 116. In reference to the abdomen, the diarrhoea consisted of “profuse liquid evacuations” without any blood—such evacuations as probably the 48 oz. of alcohol daily aided in maintaining. There was considerable tenderness of the belly; but that nearly constant feature of profound adynamia, a tympanitic state, is not mentioned. Finally, she was a young girl, aged 18, labouring under the enteric form of fever. Did she obtain benefit from the stimulus so adventurously proffered, so repeatedly taken “with disgust”? Is there a single point which shows that the symptoms were alleviated?—the course of the disease modified by the measures adopted? None whatever. In the week, about the very day when cases of enteric fever are apt to show an amelioration, a crisis of a marked nature arrived in the shape of profuse perspiration. One of the natural processes of evolution of disease, so much talked of by the author, took place. What had the brandy to do with the hastening or the promotion of this termination? Dr. Todd seemed half conscious of the real truth, when inditing the *naïve* remarks we have just quoted. But we are called on to state our belief that about the twentieth day of her malady this nurse-maid had a happy natural crisis, in which, though overwhelmed with the poison of alcohol, she first manifested the salutary beginnings of improvement.

We have analyzed these cases to little purpose if our readers have not already observed that Dr. Todd’s success in combating the phenomena of fever by no means bears any proportion to the

amount of stimulants administered. Let it never be forgotten that all these cases were *enteric fever*, in which there is a far less need for stimulants than in the typhus, so familiar to us in this country. Of the nine cases, four died. We have not space to analyse the remainder, most of which are examples of enteric fever; one appears to have been a specimen of the coexisting typhus and typhoid states. This is the general result of the total number, including those we have analyzed. Out of twenty-four cases, eleven died! Now we are willing to believe that, to meet the exigencies of clinical instruction, fatal cases may have been introduced to the notice of the class in larger proportion than those with a favourable issue. But this does not appear on the face of the record; we mark that disastrous results, to a very unusual extent, occurred. We are familiar with the Irish and Scotch typhus. We are still more familiar with the English enteric fever. No such results as these ever came under our eyes in the Dublin fever-sheds in the terrible year of famine; in the crowded wards of the Edinburgh Royal Infirmary in 1848; in the wretched courts or the ill-adapted hospital wards of the great towns of England. This book was written to prove the dominant necessity of "upholding vital power," and of effecting this by alcohol. Dr. Todd's case-books may show another result; but that which appears here leaves us in no doubt that the validity of this doctrine, so far as regards continued fever, is *not proven*.

The sixth lecture is devoted to erysipelas. The seventh takes up the interesting subject of erysipelas of the fauces, and is well worthy of perusal. The malady is admirably described.

"The force of the poison seems to fall upon the pharynx, and to paralyze it, and it must do this, either by benumbing the sensitive nerves, through which the muscular contractions are usually excited by the contact of food, or by extending to the muscles themselves and paralyzing them directly; or, it may be, in both these ways. If you look into the throat of a patient labouring under this affection, you will find the pharyngeal mucous membrane exhibiting a peculiar dusky red colour, the fauces will be perfectly open, and you will be unable to discover any mechanical impediment to free deglutition; and if now, with your finger, or pen, or probe, you touch the back of the pharynx, you will find that none of the pharyngeal muscles are thrown into action, as they invariably are in a state of health; in other words, you cannot excite the reflex actions necessary for deglutition; and if you give the patient something to swallow, as soon as he gets the liquid or solid, whichever it be, upon the back of the tongue, instead of

its being grasped by the contraction of the muscles of deglutition, and guided, as it were, into the œsophagus, in consequence of the complete palsy of these muscles, it falls by its own gravity into the larynx, and is thence immediately ejected by a powerful expulsive effort, through the mouth and nostrils."

The application of nitrate of silver to the fauces, the administration of food and stimulants, if necessary by the rectum, or by means of the stomach tube, constitute the treatment recommended, and which is very well illustrated by the cases adduced. Sometimes this condition is complicated by œdema of the palate and pharynx. One such case occurred to us where the patient was in imminent danger of suffocation, but it was arrested by free scarification of the parts, followed by the application of strong caustic solution.

The eighth lecture, on "the treatment of acute internal inflammations," is reprinted from Dr. Beale's Archives of Medicine. It is a summary review of the author's mode of treatment and general doctrines. The discussion is *apropos* of the case of a young woman, aged 19, labouring under rheumatic fever, endo-pericarditis, and pneumonia; she was treated with brandy and opium in great quantity, and recovered. The details of the case are not so fully and systematically given as to enable us to form a judgment how far the measures adopted contributed to the favourable issue. It is affirmed that inasmuch as recovery takes place in pneumonia either through the non-completion of the solidifying process, or by the rapid removal, either through absorption or a process of solution and discharge, of the new material which had made the lung solid—the measures ordinarily within our reach do not exercise a *direct* influence in effecting these changes. We may not be able to exercise "a direct influence" on the solution of the exuded materials, but assuredly the medical art is able to step in not unfrequently and prevent the completion of the solidifying process—and in a manner the most direct. Not merely so, but, so far as we can judge, in the very mode denied by Dr. Todd, by stopping the supplies. But with the school, of which he was so eminent a member, exudation is inflammation, and inflammation is exudation—given then vascular excitement, the first stage, the other stages must follow by necessity. The generation of some peculiar morbid poison is never absent from Dr. Todd's mind. "These acute internal inflam-

mations are very often, I suspect always, connected with the prominence of some peculiar diathesis." So it follows that internal inflammations are cured, not by the ingesta administered, nor by the egesta promoted by the drugs of the physician, but by a natural process, &c. If the patient in question had been bled to twelve or sixteen ounces, and taken tartar-emetic freely, it is declared without scruple that "the hepatized lungs would have remained hepatized."

It is made a matter of complaint that other reasoners take into account only two of the phenomena of inflammation, the heat and afflux of the blood, without taking into consideration both the exciting and the proximate cause of this heat and afflux of blood. To us this seems quite natural—as we know next to nothing both of the one and of the other—and there is no doubt of the heat and blood afflux. How does the author account for the heat? The exigencies of his doctrine compel him to assume that the active chemical process which accompanies the changes in exudation "engenders the great heat of the inflamed part." But the heat of parts is greatly augmented where there is no exudation—in blushing—in some erratic superficial forms of erysipelas—in the initial stage of vascular erythism in numerous local disorders, in various physiological processes well known in lower organisms; of the "active chemical process" mentioned, we have no knowledge whatever; of these facts we have demonstrative evidence. According to the author, we must "feed inflammations" as other active vital processes, and as we cannot cure an inflamed eye so long as the irritating particle of dust remains adherent to it, so in acute inflammations we must try and gain time by antidotal means "or by elimination of the local irritation, *whatever that may be*." This last qualification is a serious difficulty.*

The particular patient was not troubled with delirium. "This is uniformly the case in acute diseases, erysipelas, fever, pneumonia, rheumatic fever, in which alcohol is given, as has been done in this case; delirium is kept off by it." Finally, of stimulants it is averred that the harm which they do (*in disease*) is grossly and unfairly exaggerated, *and always due to the slovenly admin-*

* In reference to the morbid principles causing disease, M. Claude Bernard declares, that "in the present state of our knowledge, we possess no means whatever of *neutralising their action*."—*Lectures at the Collège de France, Medical Times, July 14, 1860.*

istration of them. These are bold statements, which we must leave to the individual experience of our readers.

The ninth lecture deals with pyæmia, a fatal malady calculated to try severely the acuteness of the physician. We regret to observe that Dr. Todd has been unable to throw any light on this subject. All the cases of undeniable pyæmia here recorded died, although nothing appears to us to have been left undone, in the way of stimulation, to bring about a different termination. There is no blame to be attached to the author or to the treatment. Stimulation to an unlimited degree is the order of the day in this disease, and the more or less gradual progress to death is equally the "regular thing." But there are three cases which recovered where the existence of the genuine pyæmic state admits of some question. The first concerns a young man who, having suffered from gonorrhœa and perineal abscess, becomes attacked with what looks like rheumatic fever, pleuro-pneumonia, and two or three abscesses in various parts of the body. He was admitted on the 27th of March having been ill for about a week, and was not discharged until August, and then for a "convalescent institution." He was submitted to alcoholic stimulation. The second case, one of the surgical nurses of the hospital, was attacked with inflammation of the right thumb. Pus formed in the palm of the hand and at the back of the wrist, and the exit of this pus was attended with the most marked relief. She complained of pain in the joints, but there is no evidence of general pyæmia. All the symptoms seem strictly referable, as is so familiar to surgeons, to the local inflammation and pent-up matter. She was treated freely with brandy and opium. The precise day of the beginning of this disease is not noted, but on the 30th of April it is plain that she had been ill and under treatment for some days. She was discharged on the 28th of June, "with, of course, considerable impairment of the hand and arm. This patient had altogether about 31 pints of brandy, or about an average of a pint a day for a month." The third case is preceded by an expression of regret that the treatment was not such as the lecturer would recommend at the period of the lecture. "It amounted, in fact, to almost nothing, excepting the local measures, and to this I attribute the very tedious character of the illness and the

slow convalescence." The subject of this case was a woman, aged 32, attacked on October 6th, 1845, with shivering and a red swelling of the left hand and arm. The joints became swollen, red, and painful. The right arm swelled, and was covered with a blush of erysipelas. Purulent pellets were coughed up. The left leg also showed erysipelatous redness. The limbs were placed in splints. On the 8th of November, an issue was established over the right wrist, and, some time later, a second. About the 21st of November the patient began decidedly to amend. The local symptoms subsided, and on December the 31st she was discharged cured. "At first the joints, as one might have expected, were somewhat stiff and useless." This was certainly a very severe case, and strongly reminds us of pyæmia, though we do not think that this condition existed, for reasons we cannot now detail. But on what ground does the author lament that he had not given brandy? The first case under brandy went on for about five months, and then left for a "convalescent institution." The second treated with 31 pints of brandy, existed for at least two months, and finally there was "considerable impairment of the hand and arm." The third case existed for two months and twenty-five days; the joints being at last somewhat stiff and useless. Thirty-nine days before her discharge "she began decidedly to amend." We find no proofs here of the utility of the alcohol. The cases treated with it, the case which went through the "natural process" without it, do not appear to have been much modified by the presence or the absence of that agent. But this remark applies more generally than to these illustrations of disease. Is the enormous amount of stimulant administered to such cases and to pyæmic patients properly so called attended with a beneficial result? We will not speak of a *curative* result, in reference, at least, to the latter; but have we any proof that brandy, a costly item of hospital expenditure, exercises the slightest influence of a favourable nature over the sad course of the malady? Our own observation compels us to answer this question in the negative; for some of the most satisfactory results we have witnessed in allied disorders, such as those under which these three cases probably laboured, have been obtained when only the most moderate

amount of stimulant was accessible,—we mean among the lower classes outside the hospitals.

The next four lectures are devoted to pneumonia and its complications. This disease has been often made the turning-point of medical philosophy, the touchstone of practice. These lectures, therefore, demand the most careful analysis.

The author lays down *in limine* the basis of his practice, which consists in promoting certain excretory functions, especially those of the skin and kidneys ; in active stimulation of the skin near the seat of the inflammation ; and in upholding the general powers of the system. We were not a little surprised, remembering the preface, to find the author declaring : “ I fully recognise and admit the practical value of the distinction between the two classes of pneumonia ; the one sthenic, the other asthenic and typhoid ; ” though the distinction, according to his views, ought to be differently expressed. The local inflammation is said to draw so largely upon the rest of the system, “ as to depress the general powers of life.” On the other hand, the greatest living authority on this disease, Grisolle, declares that of all moderately grave febrile maladies pneumonia is one of those which least prostrates the strength.*

The following is an analysis of all the cases given by Dr. Todd :—

Case 1 : aged 28 ; single pneumonia of lower lobe ; admitted on the third day of disease ; amendment on the sixth and seventh days ; convalescence on the 14th. No stimulants administered. Treatment—turpentine stupes, leeches, blisters, aperient medicine, and citrate of ammonia.

Case 2 : aged 17 ; single pleuro-pneumonia of lower lobe ; admitted on the third day of disease ; amendment on the sixth ; confirmed on the seventh day. On the 14th the patient left the hospital quite well. No stimulants were given. Treatment the same as first case.

Case 3 : aged 11 ; admitted on the fifth day of disease. Single pleuro-pneumonia of lower lobe. Respirations fell from 44 to 30 on the seventh day of disease. Rapid recovery. No stimulants ordered. Treatment essentially the same as before.

* *Traité de Pathologie interne*, vol. i., p. 356. Fourth Edition.

Case 4 : a girl aged 17 ; admitted with intense rheumatic fever in November, 1851, having been ill only one day. Double pleuro-pneumonia and endo-pericarditis came on. "In nine days from the commencement of the symptoms, we find a case of double pneumonia ; pleurisy and pericarditis had run its course, and the subject of it been conducted safely towards convalescence." On the nineteenth day of the rheumatism "all the joints were free from pain." No stimulants allowed. Alkalies, opium, mild aperients, calomel, blisters, turpentine stupes.

Case 5 : aged 20 ; admitted on the sixth day of the disease in 1851, labouring under acute rheumatism, double pleuro-pneumonia, and endo-pericarditis. Died on the twenty-third day. Wine first given on the twelfth day, and gradually raised from three to eight ounces per diem. Treatment otherwise same as Case 4.

Case 6 : aged 11 ; admitted on the fourth day of disease. Half an ounce of brandy every two hours, ordered on the day of admission. Resolution on the ninth day of disease ; nearly complete on the eighteenth. On the twentieth day relapse both of fever and local state ; on the twenty-third day respirations reduced, but dulness still existed. Recovered. Pneumonia single.

Case 7 : aged 6 ; admitted apparently on day of attack. Single pneumonia ; began to improve about the eighth or ninth day ; three days previously two drachms of wine ordered every hour, "the child had been fond of spirits." Reported "convalescent" twenty-one days after admission.

Case 8 : aged 36 ; complicated with typhoid fever ; brandy (half an ounce every hour) administered : recovered.

Case 9 : a "little" boy, age not given, but evidently about four or five years old, applied as an out-patient on the third day of disease. Single pneumonia ; on the ninth day of disease marked amendment ; on the tenth he was convalescent. He was treated at first for four days on quarter-grain doses of tartar emetic every four hours. On the day of admission, the seventh day of disease, two drachms of wine ordered every four hours. The next day the pulse came down 20 beats, and the respirations diminished by twelve.

Case 10 : aged 48 ; "not distinctly intemperate ;" single pleuro-pneumonia ; admitted on the fifth day of the disease. He was

put *at once* upon half an ounce of wine every four hours. On the eighth day he was worse, and was ordered half an ounce of brandy every hour. The patient declined, and died on the eleventh day. The kidneys were unsound, a matter much affecting the result of treatment.

Case 11 : aged 20, "of very intemperate habits;" admitted on the fourth day of disease. Single pleuro-pneumonia of lower lobe ; half an ounce of wine was ordered every third hour on the fifth day ; on the sixth he began to sweat, and the respirations and pulse became greatly reduced ; on the seventh sweating continued ; gradual amendment took place, and he was discharged on the seventeenth day of the disease.*

We have now the serious duty of drawing attention to the amount of success obtained by Dr. Todd in dealing with this important disease. Here are eleven cases : one was a case of pneumonia occurring in the course of typhoid fever. Of the remaining ten—some simple, others complicated—two died—one in five. Is this success ? Scarcely such a failure is to be found recorded. Of the ten cases, nine are below thirty years of age. The French statistics quoted by the author, and so well known, show that the point most influencing the mortality is the age. From fifteen to thirty, in 116 cases, there were eight deaths, scarcely one in fourteen ; from thirty to forty, the number of fatal cases amounted to one-seventh of the whole ; from forty to fifty to one-sixth ; from fifty to sixty to one-fifth. Excluding the case of pneumonia in typhoid fever which recovered, there is one only in this record above thirty, and he was 48. He died.

Another point influencing the mortality is the extent of disease. Nine of these cases are examples of single pneumonia, for the most part affecting the lower lobe only ; of the two fatal cases one was single pneumonia.

A third point, exercising a remarkable influence on the result, is the period when they first come under treatment. "The mortality of the disease steadily increases with each succeeding day it has been allowed to run its course uncontrolled. The statistics of Grisolle, referring to the treatment by moderate bleeding and tartar emetic, show that while the mortality among those seen

* It is right to state that the seventh and eighth cases were treated by colleagues of Dr. Todd.

and treated within the two first days is only one-thirteenth, it rises among those whose treatment does not commence till the eighth day from one-third to one-half of the whole number.*" These cases were placed under treatment at the following periods :—two came on in the hospital while under treatment for other disease ; one, apparently, on day of attack ; three on third day ; two on the fourth day ; two on the fifth day ; one on the sixth day. The treatment of no one commenced so late as the eighth day, when, according to Grisolle, the mortality approaches that arrived at by Dr. Todd.

But the author alludes to his general results, so as to give us a complete idea of his success, to which he refers with evident gratification. Now all statistical statements in which the minute details are withheld are nearly useless. We can roughly compare, however, one general numerical ratio with another, and so form some sort of notion of a given author's success. How do published statistics support Dr. Todd's views ? The total number of cases which occurred under his care in the hospital, from 1840 to 1859, amounted to 78 : ten were fatal. We will call it one in eight. Bouillaud's success with the *coup sur coup* bleeding is the same. What a satire on the method so energetically enunciated ! The 78 cases are arranged in two periods : the first from 1840 to 1847 ; the other from 1847 to 1859. The author calls the first "the period of reducing treatment ;" the second, "the period of supporting treatment." Twenty-five occurred in the first period ; one died in every six. Fifty-three cases occurred in the second period ; one in nine died. It is remarkable that the two fatal cases among the eleven we have been analyzing occurred "in the period of supporting treatment ;" one in 1851 ; the other in 1854. But let us take the most favourable period. Six died out of fifty-three ; the per-centage of mortality is 11·3. "Skoda, drawing not a drop of blood, employing solely *extractum graminis*, or a few grains of nitre, and, in some instances, corrosive sublimate, lost three only of 45 patients ; but the mean age of the series was only twenty-five and three quarters years." (Walshe, *op. cit.*, p. 384.) We, of

* A Practical Treatise on the Diseases of the Lungs, by Dr. Walshe, p. 384. London : 1860. Third Edition.

course, cannot compare the ages of patients not given in detail by Dr. Todd; but the mean age of the eleven analyzed is twenty, the critically favourable age for pneumonia. Varrentrapp's treatment by chloroform, including severe cases treated on other plans, shows a per-centage mortality of 11·5, all but identical with Dr. Todd's most favourable results. The treatment by "diet" in the hands of Dietl of Vienna was attended with a mortality of one in thirteen and a half, or a per-centage of 7·4. Dr. Bennett declares that the mortality under "moderate bleedings is about one case in seven; but that a treatment directed to further the natural progress of the disease, as I have explained it, has been in my practice one case in twenty-one-two-thirds."* What is the "natural progress," and what the practice of this latter pathologist? He is in categorical issue with Dr. Todd on the mechanism of the natural process; and his practice consists in either giving no stimulants, or in giving them with *extreme moderation*, such as the author would have considered mere trifling. Wine is Dr. Bennett's favourite stimulus. Brandy occupied the same place in the affections of his eminent London contemporary.

Statistics, then, do not support the opinion that Dr. Todd has opened up a new and better path in the treatment of pneumonia. We must now take a nearer view of the cases analyzed. The first four cases had no stimulants; they all got well; amendment took place on the seventh day in three, and in one of these on the sixth day improvement was noted. In the remaining case, a mass of internal acute inflammation had run its course in nine days from the commencement of treatment. The fifth case was stimulated on the twelfth day; death took place. The sixth case, a young boy, was intensely stimulated with brandy on the day of admission—the fourth day; resolution occurred on the ninth; not complete on the eighteenth; a relapse on the twentieth day; on the twenty-third, dulness still existed! The seventh case was a young lad, admitted at the beginning of the disorder: on the fifth or sixth day of disease wine ordered every hour; began to improve on the eight or ninth day; not convalescent until twenty-one days after admission. The eighth is

* The Principles and Practice of Medicine, p. 642. Second Edition.

the case complicated with typhoid fever. The ninth, a young boy : treated for four days with tartar-emetic ; on the seventh day of disease, two drachms of wine ordered every four hours (an ounce and a half in the twenty-four hours) ; the next day, marked amendment. The tenth was ordered wine on the fifth day of the disease, brandy on the eight ; he died on the eleventh. The eleventh, of intemperate habits, was ordered four ounces of wine in twenty-four hours on the fifth day of disease ; on the sixth he began to sweat ; and on the seventeenth day was discharged well. There is but one inference possible from these cases : those who were not stimulated at all did the best, and got well the soonest ; those who were moderately stimulated come next in order ; those who were greatly stimulated either died, or the "natural process" of cure was much retarded. Two only had brandy : one died ; in the other, a child, resolution was not complete on the eighteenth day of disease, and on the twentieth a relapse occurred. In this latter survey we exclude the typhoid case, which was also treated with brandy. But, again,—those who did well under stimulants not only had them in extreme moderation, but showed improvement at such a period—both in reference to the disease, and to the first administration of the stimulant—as to forbid the belief that a beneficial influence was exercised by it. This is particularly to be noticed in the ninth and eleventh cases. On the seventh day of the disease, in the former case, one and a half ounces of wine per diem were ordered ; the *next day* the pulse and respirations came down. Four ounces of wine per diem were given on the fifth day in the latter case ; the *next day* he began to sweat, and the respirations and pulse came down. Now Dr. Todd admits that about the seventh day there is a natural tendency in the disease to arrive at a crisis.

Let us compare the four cases under twelve years of age. Case 3, without stimulants, showed amendment on the seventh day. Case 9 : a minute quantity of wine on the seventh day ; showed marked improvement on the eighth day. Case 7—but little older than the last—began to improve on the eighth or ninth day ; ordered more than three times as much wine as Case 9, three days previous to improvement. Case 6 had six ounces of

brandy per diem ; resolution began on the ninth day ; not completed on the eighteenth ; subsequent relapse—*both in fever and local state.*

But we desire, in a very special manner, to draw attention to the *fourth case* analyzed. It was a case of extraordinary severity : acute rheumatism, double pleuro-pneumonia, and endo-pericarditis co-existed. The result was most creditable to the physician ; in nine days the acute internal inflammations had run their course ; no stimulants were administered.

Now let us confront Dr. Todd with himself. We have already alluded to the seventh lecture, “on acute internal inflammations,” the basis of which was the case of a woman, aged 19, who suffered from acute rheumatism, double pleuro-pneumonia, and endo-pericarditis. There is a peculiarly triumphant tone about this lecture, so that it attracted great notice at the time of its first publication in another shape. It is, indeed, the cardinal lecture of the volume, delivered in 1857, containing the deliberate expression of the author’s ripest experience. First, two, then four, then six drachms of brandy were given every hour to this patient ; about the fifth or sixth day signs of hepatization had disappeared ; on the sixteenth day signs of effusion “were at their highest point ;” on the twenty-fourth day the patient was fairly convalescent, just twenty-three days from her admission. She left the hospital, “quite well,” forty-four days after admission. Case 4 left the hospital “quite well” on the twenty-ninth day, counting the day of admission and of discharge. Here, then, are two cases of the same sex—nearly of the same age ; both treated from the beginning of the disease ; one is treated largely with brandy, the other has none ; both get well ; the first is discharged in forty-four days, the second in twenty-nine. The author alludes to the “rapid recovery” and the “rapid convalescence” of the first ; and in set words ascribes this latter to the “upholding plan” adopted. To what, then, are to be ascribed the more rapid recovery and the more rapid convalescence of the second case ? Either the first should have been allowed to pass through the disease without brandy, or the second, on Dr. Todd’s principles, was singularly carelessly treated—the brandy being omitted. We must confess that the comparison of these two

cases has more strikingly affected our mind than anything else in the book. It indeed speaks most eloquently against the stimulation plan advocated in the seventh lecture.

It is hardly necessary to state that Dr. Todd's aversion to blood-letting in pneumonia is such as almost to preclude its use altogether. We cannot discuss fully this question, but must allude to one statement. "Notwithstanding early bleeding, the lung becomes fully hepatized; nay, I would go so far as to say that, in some cases, it favours hepatization by relaxing the blood-vessels, and permitting a more ready transudation of the liquor sanguinis." This latter averment is certainly opposed to all theory and all experience, and seems to us to approach the impossible. The lung certainly becomes hepatized, notwithstanding bleeding, but neither brandy, expectation, nor diet has a better effect. It does not follow because the lung becomes hepatized after bleeding, that the loss of blood either promoted the solidifying process or produced mischief. Twenty-nine thirtieths of all cases of pneumonia do pass on into the hepatization stage. For ourselves, we thoroughly agree with Dr. Walshe: "we are simply in a period of reaction from the excesses of the Sangrado school. We have learned from our predecessors the evils of *over-bleeding*, and seem, in my opinion, very much disposed, at the present day, to learn from ourselves the evils of *under-bleeding*."—*Op. cit.*, p. 381.

Our own views of the brandy treatment may easily be inferred from previous remarks, but we cannot state them in more fitting language than the same accomplished physician has done, doubtless in reference to the late King's College Professor. "The announced success of the treatment by copious libations of brandy appears simply to furnish a fresh illustration (as conversely Bouillaud's alleged triumphs by his *saignées coup sur coup*, in genuine 'typhoid,' Peyerian fever) of the wondrous power of the *vis medicatrix naturæ*." *

* In alluding to the alcoholic treatment of disease as "*incendiary medication*," Dr. Lasègue says: "Dr. Todd, of regrettable memory, has held, and pretended to prove by practice, that alcoholic drinks are among the most active remedies in inflammatory states: he has not hesitated to prescribe sherry, and even brandy, in high doses to patients attacked with pneumonia and other acute phlegmasiæ: and, at least, we may infer from his essays that alcohol administered below actual toxic doses is less perilous than we supposed."—*Archives Générales de Médecine*, July, 1860, p. 86.

The concluding lecture is upon "the therapeutical effects of alcohol," which we will venture to call a misnomer. "Poisonous effects" would have been a more correct term, as the main cause of the lecture was the case of a child, three years old, admitted into the hospital, labouring under the effects of the administration by her mother, at one dose, of $2\frac{1}{2}$ oz. of gin. Convulsions came on, and left hemiplegia. On the day after admission the patient was becoming exhausted, so a teaspoonful of wine was given every second hour. The next day she was worse; on the fifth she died. The brain was found to be very pale. What is the author's commentary on the case? Here are the last three sentences of this remarkable man's last book:—"Were I to treat such a case again, I would give wine or brandy more freely than was done in this instance, and I would also administer by the rectum quinine with a small quantity of brandy. You will find this often a very useful practice where the powers of life are low, and it *ought not to have been omitted in our little patient's case*. But she showed so little power of reaction, that it is in the highest degree improbable that any further treatment would have been successful." The end! We see here the influence of a ruling idea. Exhaustion, no matter how produced, seemed to the author in nature one and indivisible, and suggests alcohol as a matter of self-evident necessity, even when brought on by alcohol.

Case 91, recorded in this lecture, was a woman aged 42, who, after drinking hard for two days, without taking food, was attacked with delirium tremens. Opium and brandy were freely administered; but on the seventh day she was so ill as to require restraint. On the eighth day the patient was still violent, in spite of large doses of opium. Under chloroform relief came, but she only "slept soundly" on the fifteenth day. Here, too, the action of the poison which produced the disease was energetically maintained by the physician. Brandy was administered, evidently as the routine remedy, on the day of admission, though there is not a word said of weakness, prostration, and so forth. She was labouring under the representative symptoms of the poisonous effects of alcohol in certain quantity. No one can be conversant with the researches of Peddie, Laycock, and many others both

before and since their time, without concluding that, had this woman been placed in a large room, with two strong nurses, without a doctor, there is a high moral probability that about the fifth day of the disease she would have slept off her debauch.

We will not profess that we have given our readers a complete view of all that is valuable in this book. Far from it. Our object has been to afford them a glance of the scope and tone of the volume. It is replete with sound remarks on the natural history, diagnosis, and detailed management of disease; but we have felt it to be our duty to pass over these, being more or less recognised, and confine our attention to that which specially characterizes the book—its opposition to the generally received maxims relative to the treatment of disease. All will admit that Dr. Todd was the most eminent defender of the school of stimulation, and that his enthusiasm in the cause enabled him to exercise no ordinary influence over his pupils and his brethren. In criticising him we select the most able and the most distinguished of the school.

But we must not part from the author without the expression of our admiration for his rare devotion to the duties of a hospital teacher, his unswerving honesty of purpose, and his great gifts both as a physiologist and as a physician. In the former of these capacities his valuable services in the cause of science deserve more gratitude than we can here fully give utterance to. Happily we have in the "Cyclopædia" and "Physiological Anatomy" imperishable monuments of his rich endowments and unbounded industry. With all our differences of opinion on points of practice we can still sorrowfully declare—"Eheu! quanto minus est cum reliquis versari, quam tui meminisse."

